Claims

1. (Amended) A saponified poly(vinyl acetate)-based photosensitive resin characterized by having a structural unit represented by formula (1):

(wherein R_1 represents H or Me; R_2 represents a linear or branched C2-C10 alkylene group; n is an integer of 1 to 3; X represents

$$\begin{array}{c|c} & & & & \\ & &$$

m is an integer of 0 to 6; and Y represents an aromatic ring or a single bond).

- 2. A photosensitive resin composition characterized by comprising a photosensitive resin according to claim 1.
- 3. A photosensitive resin composition according to claim 2, which further contains a photopolymerization initiator.
- 4. A photosensitive resin composition according to claim 2 or 3, which further contains water serving as a solvent.
 - 5. A method for forming a hydrogel characterized by

comprising subjecting a photosensitive resin composition as recited in any of claims 2 to 4 to photopolymerization.

6. (Amended) A compound represented by formula (2):

(wherein R_1 represents H or Me; R_2 represents a linear or branched C2-C10 alkylene group; X represents

$$\begin{array}{c|c} O & \begin{array}{c} H_2 \\ C \end{array} \\ O & \begin{array}{c} C \end{array} \\ O \end{array} \\ \begin{array}{c} C \end{array} \\ \\ \end{array} \\ \begin{array}{c} C \end{array} \\ \\ \end{array} \\ \begin{array}{c} C \end{array} \\ \begin{array}{c$$

 ${\tt m}$ is an integer of 0 to 6; and Y represents an aromatic ring or a single bond).

7. (Amended) A compound represented by formula (3):

(wherein R_1 represents H or Me; R_2 represents a linear or branched C2-C10 alkylene group; X represents

m is an integer of 0 to 6; Y represents an aromatic ring or a single bond; and each of R_3 and R_4 represents a C1-C3 alkyl group).